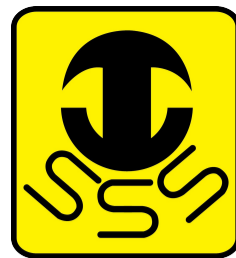


# Programme

Prime Minister Research Fellowship students' teaching requirement  
facilitated by the Institute of Smart Structures and Systems



## Module PMRF-ISSS081/2022

# An Introduction to Scalable Systems

### Name of the PMRF student

Suman Raj

### Required background of the students taught

Computer Science and Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering, Instrumentation and Control Engineering,, Students from other background with an interest in scalable and distributed systems may also register.

### Online session coordinator

Will be chosen from the list of registrants



### Details of the content of the module

Week 1: Introductory class, Computer organization

Week 2: Introduction to Parallel Architectures: Shared and Distributed memory architectures

Week 3: Parallelization Principles

Week 4: Many-core architecture, Introduction to GPU architecture

Week 5: Introduction to Big Data, Role of distributed computing: Commodity cluster, cloud computing, Edge computing

Week 6: Distributed File System HDFS)

Week 7: Distributed File System (GFS)

Week 8: Big Data Programming Model: Apache Spark

Note: Content may vary slightly

Lecture (75 min) + Q&A (15min)

### Schedule of the module

Course Start Date: 09<sup>th</sup> April, 2023

Course End Date: 03<sup>rd</sup> June, 2023 (tentative)

Total Duration: 24 hours

Weekly Sessions: Saturday, Sunday

Session Timings: 6.00 – 7.30 PM IST

Meeting link : Will be shared later

[Link](#)

Contact email ID: [issf.forum@gmail.com](mailto:issf.forum@gmail.com)

Registration link:

<https://forms.gle/jdDRCh3EnaNRqAASA>